OVERVIEW OF NAVY PLANS AND NEEDS

JLOTS R&D SYMPOSIUM

01 February 2000

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CNO N422D

Outline

- Introduction
- CINC Requirements
- R&D Requirements
- JLOTS Master Plan
- Summary

Significant Investment in Sealift ...

- $6B Large Medium Speed Roll-on/Roll-off (LMSR) ship acquisition program (since 1990)
- FY99 (O&S): $ 650M Afloat Prepositioning Ships (MPS, AWR-3, USAF)

  $ 320M Ready Reserve Force (RRF)

LMSR

MPS

…But need to offload cargo in-stream

Need flexibility to offload where austere, damaged, or no ports exist

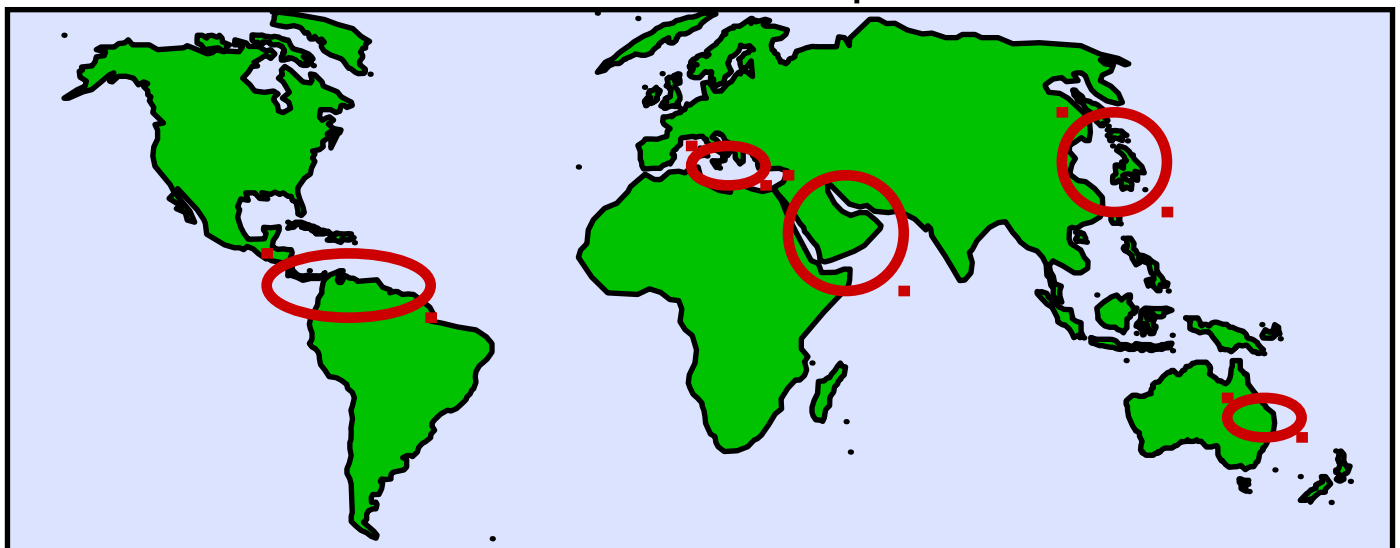
- ***90%*** *Desert Shield/Desert Storm cargo moved by sea*
- *Fixed Ports of Debarkation:* *tempting targets of opportunity*
  - WMD: chemical/biological
  - Terrorist

CINC Requirements

- **Sustain safe operations in sea state 3**
- **Service interoperability**

A WAR STOPPER

- Example: Some ship offload operations were curtailed in Somalia and most recently in Combined/Joint Exercise Tandem Thrust in Feb/Mar 97 and due to inability to operate in higher sea states...
- ...But sea state 3 is a worldwide problem.

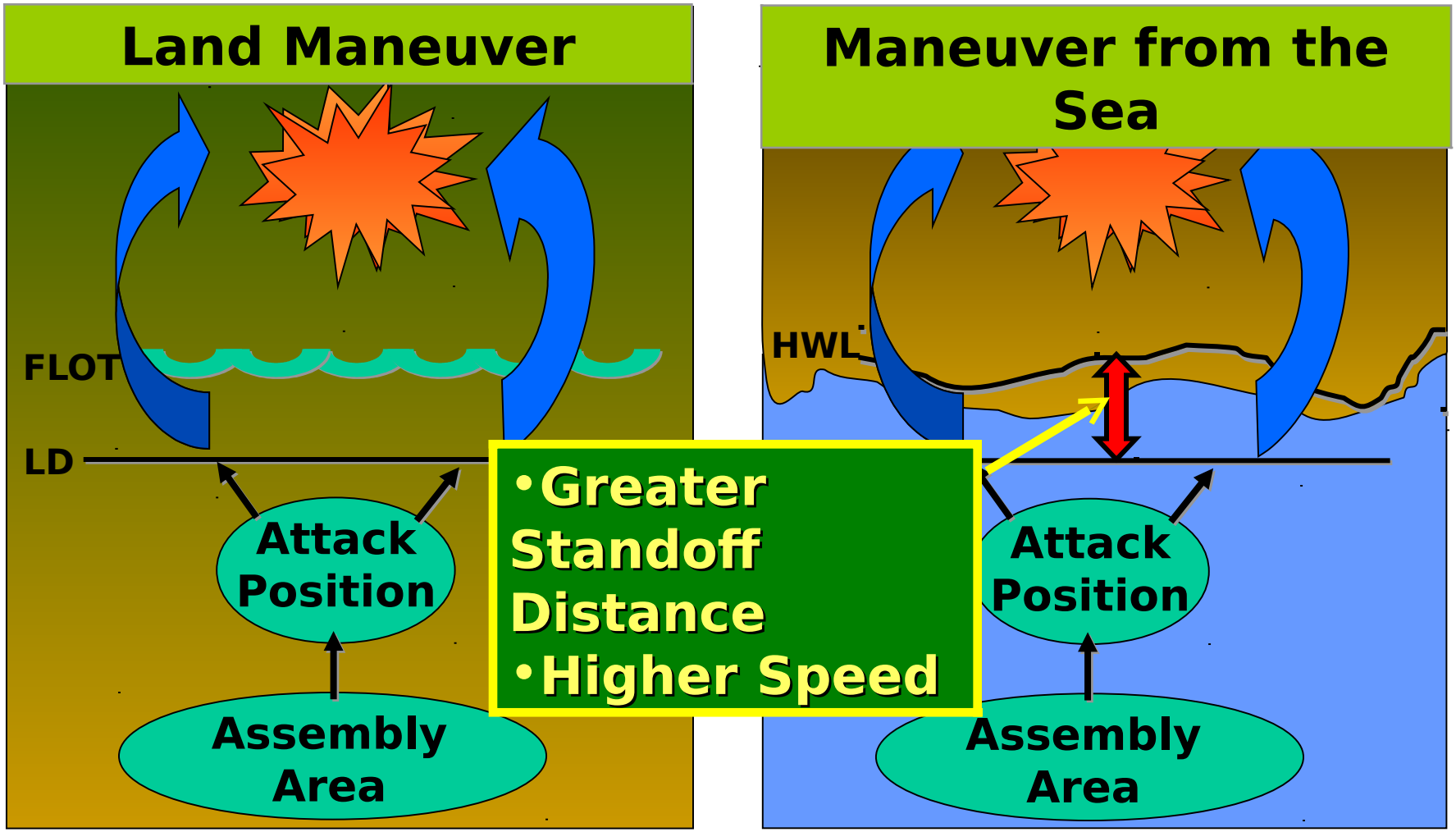


In some Cinc Areas of Responsibility (AORs), sea state 3 exists up to 50% of the time!

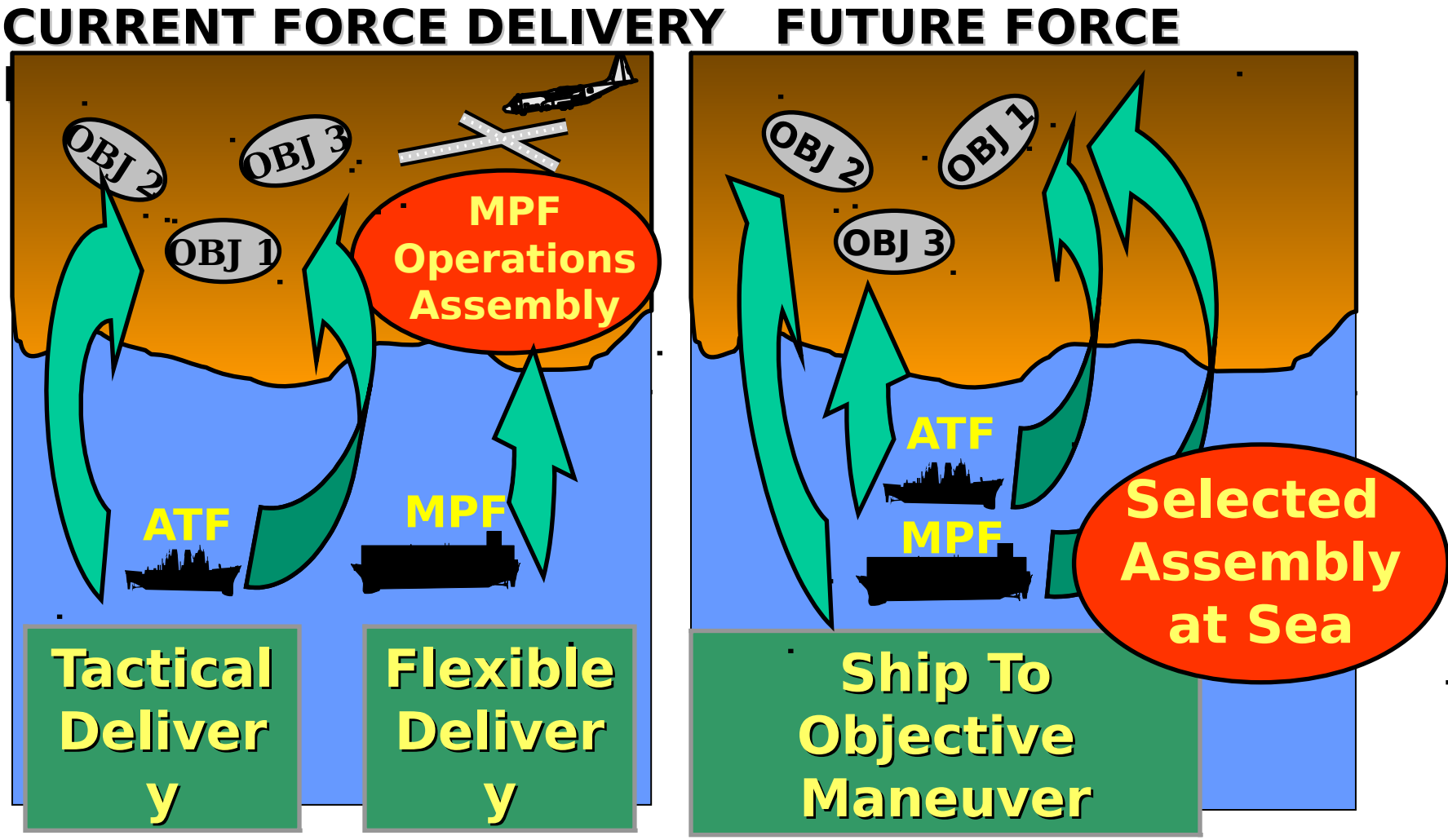
Future USN/USMC LOTS Concepts

- **R&D Requirements must also look to future concepts now evolving:**
  - Operational Maneuvering From the Sea (OMFTS)
  - Ship To Objective Maneuver (STOM)
  - MPF Future: 2010 and Beyond

OMFTS:
APPLICATION OF MANEUVER WARFARE TO MARITIME OPERATIONS



MPF(F) ATF INTEGRATION



Navy R&D Requirements

- **Defense Planning Guidance for JLOTS:**
  - Services will continue to evaluate Sea State 3 technologies against throughput requirements and will program to field a JLOTS SS3 capability by FY 2005

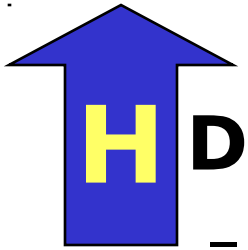
Navy R&D Requirements

- **Expeditionary Logistics**
  - **Technology to enable effective and efficient movement of equipment, supplies and personnel. Movement may be through ports, between sea-based platforms, over the beach, or by air into and out of operating areas.**

Navy R&D Requirements

- **Expeditionary Logistics**
  - **Enables execution of future Naval concepts such as:**
    - **Operational Maneuver From The Sea (OMFTS)**
    - **Ship to Objective Maneuver (STOM)**
    - **Seabasing**
    - **SS3 Joint Logistics Over The Shore (JLOTS)**
    - **Selective Offload**
    - **Total Asset Visibility (TAV)**

JLOTS R&D Requirements

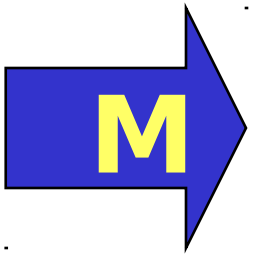


Develop throughput technology to

- increase ability to operate through Sea State 3 in all phases of ship-to-shore cargo movement
- provide a rapidly deployable bulk fuel delivery system to support the assault echelon and JLOTS
- extend standoff distances from the shore that support OMFTS (*up to 50 NM, likely distance of 25 NM*)

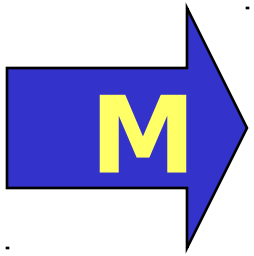
JLOTS R&D Requirements

Develop throughput technology to improve mechanized cargo/weapons handling from sea to shore



Develop technology to reduce the effect of sea states surrounding a seabase to a value less than or equal to 3

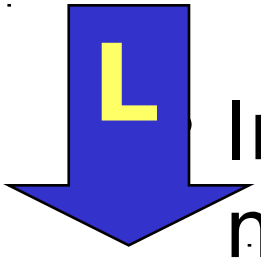
JLOTS R&D Requirements



Develop JLOTS deployment and retrieval technology to:

- reduce installation and retrieval times of JLOTS sub-systems with a goal of at least 25-50% of established doctrine

JLOTS R&D Requirements



- Improve or develop advanced modeling and simulation technology to:
  - develop operations analysis techniques to maximize effective use of JLOTS assets
  - develop analytical tools to support design, assessment, and acquisition of future JLOTS systems

SS3 JLOTS is a "System of Systems"

- Sealift Ships
- Shipboard Cranes
- Ramps & Interfaces
- Lighters
- Sea State Mitigation

Joint Integrated Process Team

- Chartered by Army-Navy JLOTS MOA in Aug 96
- Long-range vision: *Enhance coordination between Services and the JLOTS community and optimize cargo throughput for CINC warfighter*
- Near-term focus: *Develop plan for integrated, Service-interoperable sea state 3 JLOTS capability*
  - ***JLOTS Support Systems MNS***: Overarching document detailing requirement for sea state 3 JLOTS capability

    Navy approved May 97, Army approved Aug 97

JLOTS JIPT Focus Groups

Ship Operations &Cargo Movement	Mooring, Fendering, and Ramp Interface	Ship-to-Shore and Lighter Discharge Operations	Sea State Mitigation	Training, C2, & Doctrine	Future Systems and Operational Alternatives
Marty Fink NAVSEA	Art Rausch CDNSWC	LCDR Sayger NAVFAC	Don Resio WES	CDR White EWTGPAC	CW3 Aube CASCOM

Progress

- **Accelerated and Efficient Processes**
- **Teaming……Services, User Community & Industry**

Near Term Objectives

- **Meet Quarterly**
- **Update JLOTS Master Plan, electronic format (est.**

Summary

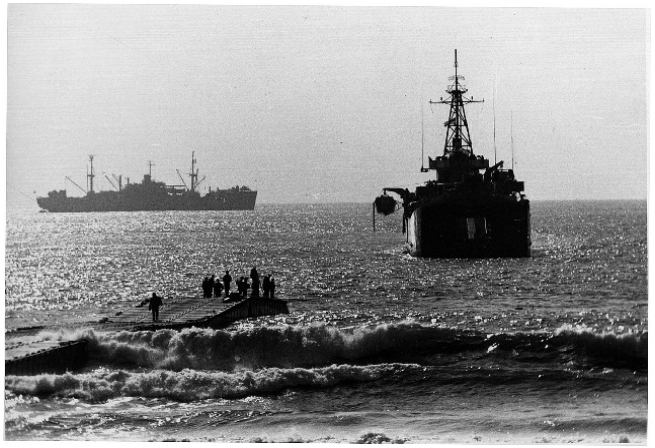
- Navy JLOTS R&D efforts support N4 R&D and JLOTS Master Plan:
  - ***Addresses High Level Requirement***
  - ***-- Integrates entire JLOTS community***
    - **-- Operators**
    - **-- Services**
    - **-- Training**
    - **-- Research & Development**
    - **-- Acquisition**
  - ***Looks to future***

Sea State Conditions (*Pierson-Moskowitz Sea Spectrum)*

Sea state 3 for JLOTS operations is defined as the combination of sea and swell components, in the littorals, of significant wave heights (H1/3) ranging from 3.5 to 5.0 ft. and wind speeds from 13.7 to 16.4 knots.

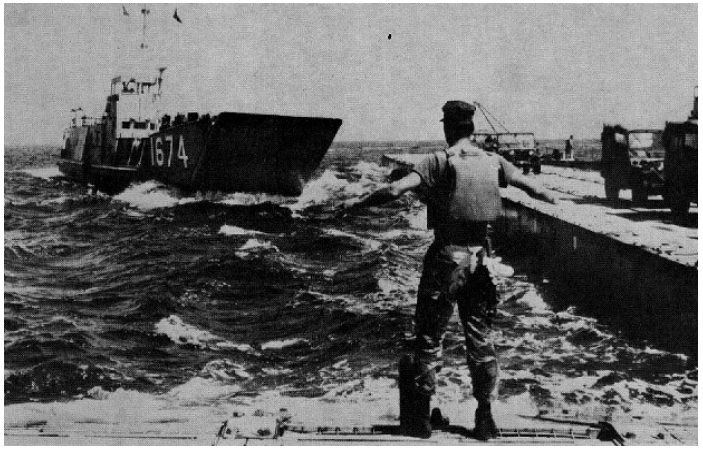
Sea State 0:

Wave Height: 0.1 - 0.15 ft
Wind Speed: 2.5 - 2.8 kts



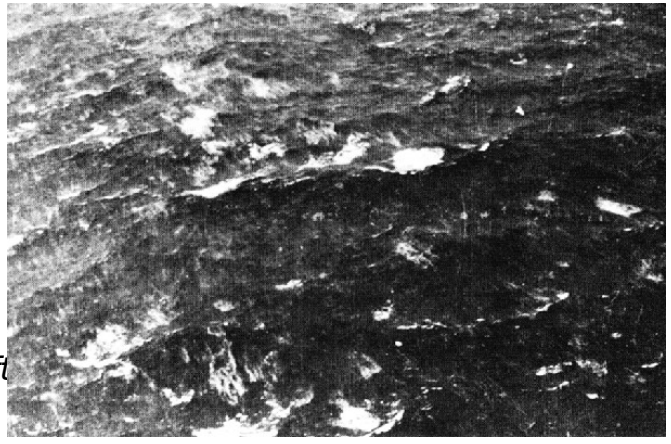
Sea State 1:

Wave Height: 0.5 - 1.2 ft
Wind Speed: 5.1 - 8.0 kts



Sea State 2:

Wave Height: 1.5 - 3.0 ft
Wind Speed: 5.0 - 12.7 kts



Sea State 3:

Wave Height: 3.5 - 5.0 ft
Wind Speed: 13.7 - 16.4